

THE DER WEEKLY

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Distributed Energy Resources...the Power of Choice

● Industry News

Fuel Cells for Elevators

Ft. Lauderdale, FL-based Apollo Energy Systems, Inc. (AES) recently announced it received a \$223-million order for hydrogen fuel cells from Jacksonville, FL-based Hydrolec, Inc. The order calls for a shipment of 2,000 Apollo fuel cell systems per month starting in 2002. AES said each fuel cell system consists of a 10-kilowatt (kW) Apollo alkaline fuel cell, a 12 kW-hour lead cobalt battery, a direct current to alternating inverter and other hardware. The systems will be used for backup power for hydraulic and electric elevators in the U.S. and abroad that have not been protected against grid power failure, said AES. AES and Hydrolec have also entered into a co-production agreement under which up to 10,000 Apollo systems will be produced per month, with fuel cell production by AES and system assembly by Hydrolec.

Fuel Cell Restores Power During Storm

On Feb. 7, when 70-mph winds ripped through the central Oregon coast to Eugene it knocked out power to tens of thousands. One of the bright spots with power was the warehouse at Emerald Peoples Utility District (EPDU) in Eugene. There, a recently installed 3-5 kilowatt IdaTech fuel cell system provided crews the only power they had as they worked through the wet night to restore electricity. In addition to lights and heat, the refrigerator-sized system, which runs very quietly and produces almost no emissions, powered a cable puller used to stock line trucks from a great spool. For the 14 hours the warehouse's main power was out, the IdaTech fuel cell system purred along flawlessly. "It provided us a well-needed service," said Jackson-Gistelli, who said all he had to do was push a button to start the system up. "This clearly demonstrates an early promise of fuel cells: clean, quiet, dependable back-up power without the disadvantages of traditional gensets," said Mark Fleiner, IdaTech's vice president of marketing. EPUD is participating in a multi-state field-test program of IdaTech's systems managed by the Bonneville Power Administration. Utility leaders are exploring the potential of fuel cells to provide an array of service opportunities, including power to remote sites and back-up power to homes and businesses. Jackson-Gistelli said that's just what the crews in the warehouse were able to do the night of the storm, when most of its 18,000 customers were without power.

IdaTech Press Release, February 11

● Rouse Company Selects BGE Commercial Building Systems to Provide Electricity

BGE Commercial Building Systems, a wholly owned subsidiary of BGE Home and a member of Constellation Energy Group, announced today that it has been selected by The Rouse Company to provide in excess of 125 thousand mega-watt hours of electricity annually to the corporate office and 9 retail malls over the next two years. The Rouse Company properties include Owings Mills Mall, White Marsh Mall, Mondawmin Mall, The Mall in Columbia, Harborplace, The Gallery at Harborplace, The Village of Cross Keys, Metro Plaza, and The Rouse Company Headquarters in Columbia, Maryland. As a result of electric deregulation, large commercial businesses must select an energy supplier by July 1, 2002 or begin paying market-based rates. The Rouse Company, aware of the approaching date, was the first large business of its kind in Maryland to sign with an alternative supplier. A Rouse Company strategy is to take a proactive approach to deregulation and take advantage of new opportunities to reduce operating expenses. "Rouse was looking for a local company to provide them with customized energy solutions to address the competitive nature of their business. BGE Commercial Building Systems proved that they were the best choice to meet our energy needs," said Andy Tilmont, Director of Operations Administration, for The Rouse Company.

PR Newswire, February 12

● BP to Install Solar Panels in CO Stations

BP, the former British Petroleum, will introduce solar-electricity panels in the canopies of its Colorado gasoline stations in the next few months. BP has won accolades from both business and environmental groups for its environmentally sustainable approach to business. According to Bob Malone, regional president of BP America, "BP believes that safeguarding the environment and maintaining secure energy sources are not mutually exclusive -- we can do them both." In Colorado, Malone said BP has been an industry leader in reducing methane emissions from natural-gas production. He said methane venting from BP gas wells and processing facilities in Colorado is down 98 percent since 1990. However, despite its "green" credentials, BP's gas production in southwestern Colorado has generated criticism by landowners

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*Aggreko, the official temporary power generation and distribution services supplier for the 2002 Olympic Winter Games, is employing 107 people to keep the Games with continuous power.**

NARUC ADOPTS RESOLUTION ENDORSING DEVELOPMENT OF MODEL DG RULE

The Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC), this week at the NARUC 2002 Winter Meetings in Washington, D.C., endorsed the development of model interconnection agreement and procedures under the direction of its Committees on Electricity, Energy Resources and the Environment and Finance and Technology. Reiterating NARUC's support for open access to the nation's electricity grid, and the importance of distributed energy resources to our energy future, the resolution noted that:

- coordination among the States could improve the consistency of treatment so important to the efficient integration of distributed energy resources;
- increased national consistency would lower entry barriers and enhance business economic efficiency;
- the ready availability of NARUC developed model agreements and procedures will aid in balancing those concerns; and
- the preparation of model interconnection agreement and procedures by NARUC could provide significant support and efficiencies to those States which have yet to address the challenges of distributed energy resources, and the consideration, adaptation or adoption of such models could provide material assistance in achieving the coordination among the states called for by previous resolutions.

Following the pioneering work of Texas, New York, and several other states which have implemented interconnection rules for DER, NARUC's commitment to development of a model interconnection rule is a significant milestone in removing a major market barrier to DER.

and environmental groups who say gas drilling has contaminated and depleted water wells, diminished property values and hurt vegetation and wildlife.

The Denver Post, February 12

California Energy Commission Certifies Microturbines



Capstone's 30- and 60-kilowatt microturbines have become the first products to be certified by the California Energy Commission (CEC) for compliance with its Rule 21 grid interconnection standard. The certification reduces the interconnection review process from up to a year to two-to-three weeks.

Capstone CEO Ake Almgren said, "The CEC and all of California's major utilities spent more than a year jointly developing the landmark Rule 21 distributed generation interconnection standard. We are pleased that our innovative microturbine systems have now officially been certified as being safe for interconnection to the grid. We think this is a significant step toward growing distributed generation market access in California, and for Capstone differentiating its products in the California market."

Source: Capstone Press release, 2/11/02

DOE News

ICEPAG 2002

The 4th Annual International Colloquium on Environmentally Preferred Advanced Power Generation (ICEPAG) was held in Newport Beach, California, on February 4-7, 2002. ICEPAG is an instructional and participatory conference that examines emerging energy technologies, along with the market and regulatory factors that influence energy demand and supply both nationally and globally. In attendance was an international audience of energy policy and decision makers, facility managers, technology developers, and researchers from the public and private sectors. Gary Burch attended and made a presentation on "Renewable-Fueled" Hybrid Power Systems.

By the Numbers

Distributed Generation of Olympic Proportions

350 Number of generators powering the Olympic Village

500 Miles of electrical cable wiring generators to the load

18 Months spent laying electrical lines and installing the generators prior to the February 8 opening ceremony

*Because the terrain is so difficult, military Black Hawk helicopters had to be used to hoist the generators up the mountainsides.**

Calendar of Events

FEBRUARY 2002			
20-21	Growing Green Power Demand	Denver, CO	www.xenergy.com/denver
20-22	NET 2002: New and Emerging Technologies Conference	Tucson, AZ	www.nreca.org/edu_events/conferences/newtech/html/conference.html
21-22	Mid-Atlantic Distributed Energy Resources Workshop	Philadelphia, PA	www.eren.doe.gov/pro/cal.html ; to register: www.energetics.com/DERPhilly.html
Feb 25-March 1	Turbine Power Systems Conference and Condition Monitoring Workshop	Galveston, TX	www.netl.doe.gov
Feb 27-March 1	15th Annual IDEA College/University Conference	Denver, CO	www.districtenergy.org
Feb 27-March 1	DistribUTECH	Miami Beach, FL	www.pennwellevents.com
Feb 27-March 1	Hydrogen Storage Technology—Status and Critical Needs	Hilton Head, SC	william.summers@srs.gov
MARCH 2002			
4-8	Design of Low Emission Gas Turbine Combustors	Irvine, CA	www.ucicl.uci.edu/GTESC/
7-8	Distributed Generation	South San Francisco, CA	www.aeecenter.org/seminars
11-13	6th Annual Distributed Generation & On-Site Power Conference	Atlanta, GA	www.dist-gen.com ; (508) 427-9470; gesi@mediaone.net
12	National Energy Modeling System/Annual Energy Outlook Conference	Washington, DC	www.eia.doe.gov/oiaf/aeo/conf/
13-15	Power System 2002 Conference: Impact of Distributed Generation	Clemson, SC	www.ces.clemson.edu/powsys2002/main.htm
14-15	Fundamentals of Energy Management	Las Vegas, NV	www.aeecenter.org/seminars
12-14	DOE Gas Turbine and Microturbine Programs Peer Review	Fairfax, VA	Debbie Haight (202) 586-2211
17-21	EPRI's 7th Distributed Resources Conference and Expo	Dallas, TX	www.epri.com/programHigh.asp?program=238295&objid=266151
19-21	Electric Power 2002	St. Louis, MO	www.electricpowerexpo.com
20-23	Building Energy Conference	Medford, MA	www.nesea.org ; (877) 44-SOLAR, ext. 20
22	Indiana/Caterpillar CHP Workshop	Indianapolis, IN	Ethan Rogers, (317) 232-8961
25-26	Fundamentals of Cogeneration & On-site Generation	Philadelphia, PA	www.aeecenter.org/seminars
26-27	2nd Annual Fuel Cell Investor	New York, NY	www.srinstitute.com/cr218
27-28	GLOBALCON Energy/Facilities Management Conference & Expo	Philadelphia, PA	www.aeecenter.org/seminars

*The entire temporary electrical system can be controlled and rerouted with one computer.**

Calendar of Events

APRIL 2002			
2-3	Implementing Renewable Energy Projects	Washington, DC	Gail Norby, (303) 526-5528, gail@imaginitech.com
3-4	The 2002 Hydrogen Investment Forum	Washington, DC	www.intertechusa.com
8-9	Colorado Wind and Distributed Energy: Renewables for Rural Prosperity	Denver, CO	www.state.co.us/oemc
8-9	Fuel Cells and Distributed Power Conference	Stamford, CT	www.bccresearch.com/fuel_cells
15-17	EESAT 2002, Electric Energy Storage—Applications and Technologies	San Francisco, CA	www.sandia.gov/EESAT; Dr. Imre Gyuk (202) 586-1482
21-23	4th Annual Small Fuel Cells Conference	Washington, DC	custserv@knowledgefoundation.com
30-May2	Houston Energy Expo	Houston, TX	www.nesanel.org
MAY 2002			
1-3	External Combustion Engines—New Strategies for Efficient, Green Power Generation	Los Angeles, CA	chuck@intertechusa.com
23-24	FEMP DER Workshop	Atlanta, GA	Lisa Hollingworth 404-562-0569
JUNE 2002			
2-5	Energy 2002 Workshop and Expo: Hot Challenges, Cool Solutions	Palm Springs, CA	(703) 243-8343, www.energy2002.ee.doe.gov
6-7	West Coast Energy Management Congress	Anaheim, CA	(703) 243-8343, www.aeecenter.org
16-18	National Accounts Conference and Exhibition (American Gas Association)	Nashville, TN	TheGasChoice.com
JULY 2002			
	No events submitted for this month.		
AUGUST 2002			
18-23	Summer Study on Energy Efficiency in Buildings	Pacific Grove, CA	www.aceee.org

* Source: *The Daily Oklahoman*, Feb. 13